

## WHAT IS CLAIMED IS:

1. An audio-video (AV) signal transceiving processing device, comprising:

an AV decoder for receiving an analog video signal and a corresponding analog audio signal, and outputting a first digital audio signal and a corresponding first digital audio signal; and

a bridge for receiving the first digital video signal and the first audio signal and outputting a second video signal and a second audio signal, which are compliant to a bus interface standard, to a computer through a bus interface compliant to the bus interface standard;

wherein the bus interface is a PCMCIA, CardBus or Express Card bus interface.

2. The AV signal transceiving processing device according to claim 1, wherein the computer encodes the received second video signal and the second audio signal into a third digital AV signal.

3. The AV signal transceiving processing device according to claim 2, wherein the third digital AV signal is a Mpeg2 AV signal.

4. The AV signal transceiving processing device according to claim 1,

wherein the AV decoder decodes the received analog audio signal into at least an analog right channel audio signal and an analog left channel audio signal, and the AV decoder converts the analog right channel audio signal and the analog left channel audio signal into a digital left and right channel audio signal which is then outputted to the bridge.

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5. The AV signal transceiving processing device according to claim 1, wherein the AV signal transceiving processing device further comprises:

a tuner for receiving a analog television (TV) AV signal, and outputting the analog video signal and the analog audio signal to the AV decoder when tuned.

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6. The AV signal transceiving processing device according to claim 1, wherein the analog video signal is an analog S video signal, and the analog audio signal includes at least an analog right channel audio signal and an analog left channel audio signal, both of which correspond to the analog S video signal.

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7. The AV signal transceiving processing device according to claim 1, wherein the analog video signal is an analog V video signal, and the analog audio signal includes at least an analog right channel audio

signal and an analog left channel audio signal, both of which correspond to the analog V video signal.

8. The AV signal transceiving processing device according to claim 1, wherein the bridge can also receive a forth digital AV signal from a digital signal source, which is different to the AV decoder, and convert the forth digital AV signal into a fifth digital AV signal, which is compliant to the bus interface standard, that is then outputted to the computer through the bus interface.

9. The AV signal transceiving processing device according to claim 8, wherein the forth digital AV signal includes a transport stream (TS) AV signal, a Mpeg2 AV signal, or any other types of digital AV signal.

10. The AV signal transceiving processing device according to claim 1, wherein the bridge can also receive a first digital broadcasting signal from a digital signal source different to the AV decoder, and convert the first digital broadcasting signal into a second digital broadcasting signal, which is compliant to the bus interface standard, that is the outputted to the computer through the bus interface.

11. The AV signal transceiving processing device according to claim 1, wherein the AV decoder can also receive an analog broadcasting

signal and output a digital broadcasting signal to the bridge accordingly.

12. The AV signal transceiving processing device according to claim 11, wherein the AV signal transceiving processing device further comprises:

5 a tuner for receiving an analog frequency modulation (FM) broadcasting signal and outputting the analog broadcasting signal when tuned.

13. The AV signal transceiving processing device according to claim 1, wherein the computer is a desktop computer or a notebook computer.

- 10 14. The AV signal transceiving processing device according to claim 1, wherein the analog audio signal includes an analog left channel audio signal and an analog right channel audio signal.

- 15 15. An audio-video (AV) signal transceiving processing device comprising a bridge for receiving a first digital AV signal and converting the first digital AV signal into a second digital AV signal, which is compliant to a bus interface standard, wherein the second digital AV signal is then outputted to a computer through a bus interface compliant to the bus interface standard, wherein the bus interface is a PCMCIA, CardBus or

Express Card bus interface.

16. The AV signal transceiving processing device according to claim 15, wherein the first digital AV signal includes a transport stream AV signal, a Mpeg2 AV signal, or any other type of digital AV signal.

5 17. The AV signal transceiving processing device according to claim 15 wherein the computer is a desktop computer or a notebook computer.

18. An audio-video (AV) signal transceiving processing device comprising a bridge for receiving a first digital broadcasting signal and converting the first digital broadcasting signal into a second digital broadcasting signal, which is compliant to a bus interface standard, wherein the second digital broadcasting signal is then outputted to a computer through a bus interface compliant to the bus interface standard, wherein the bus interface is a PCMCIA, CardBus or Express Card bus interface.

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19. The AV signal transceiving processing device according to claim 18 wherein the computer is a desktop computer or a notebook computer.

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